CLAIMS:

What is claimed is:

5

1.   A method for context-based dynamic assignment of weights for formal commands in a natural language understanding system, comprising:

receiving a user input;

translating the user input into a formal command;

10   etermining a weight value for a next set of formal commands based on the formal command;

dynamically boosting the command weights for the next set of formal commands; and

executing the formal command.

15

2.   The method of claim 1, further comprising:

receiving a second user input; and

translating the second user input into a formal command based on the weight value.

20

3.   The method of claim 1, wherein calculating a weight value for the next set of formal commands includes one of a given command history, access method information, and application context.

25   4.   The method of claim 1, wherein dynamically boosting the command weights for the set of formal commands includes ranking the formal commands based on their corresponding conditional probability.

5.   The method of claim 1, wherein translating the user input into a formal command includes converting the user input into text and converting the text into a formal command.

5

6.   The method of claim 1, further comprising:
resetting the boosted command weights to a default value.

7.   The method of claim 6, wherein the step of resetting the boosted command

10   weights includes automatically resetting the command weights to the default value after the next set of formal commands are executed.

8.   The method of claim 6, wherein the step of resetting the boosted command weights includes issuing a reset command by the dialog manager.

15

9.   The method of claim 6, wherein the step of resetting the boosted command weights includes allowing the boosted command weights to decay over time.

10.   The method of claim 9, wherein allowing the boosted command weights to decay

20   over time includes resetting the boosted command weights when the command weights reach a minimum value.

11.   The method of claim 1, wherein translating the user input into a formal command includes creating a subset of formal commands to narrow a search space for determining

25   the formal command corresponding to the user input.

12.   A data processing system for context-based dynamic assignment of weights for formal commands in a natural language understanding system, comprising:

means for receiving a user input;

means for translating the user input into a formal command;

5   means for determining a weight value for a next set of formal commands based on the formal command;

means for dynamically boosting the command weights for the next set of formal commands; and

means for executing the formal command.

10

13.   The data processing system of claim 12, further comprising:

means for receiving a second user input; and

means for translating the second user input into a formal command based on the weight value.

15

14.   The data processing system of claim 12, wherein the means for calculating a weight value for the next set of formal commands includes one of a given command history, access method information, and application context.

20   15.   The data processing system of claim 12, wherein the means for dynamically boosting the command weights for the set of formal commands includes ranking the formal commands based on their corresponding conditional probability.

16.   The data processing system of claim 12, wherein the means for translating the user

25   input into a formal command includes converting the user input into text and converting the text into a formal command.

Docket No. YOR920030305US1

17.   The data processing system of claim 12, further comprising:

means for resetting the boosted command weights to a default value.

18.   The data processing system of claim 17, wherein the means for resetting the

5   boosted command weights includes automatically resetting the command weights to the

default value after the next set of formal commands are executed.

19.   The data processing system of claim 17, wherein the means for resetting the

boosted command weights includes issuing a reset command by the dialog manager.

10

20.   The data processing system of claim 17, wherein the means for resetting the

boosted command weights includes allowing the boosted command weights to decay over

time.

15   21.   The data processing system of claim 20, wherein allowing the boosted command

weights to decay over time includes resetting the boosted command weights when the

command weights reach a minimum value.

22.   The data processing system of claim 12, wherein the means for translating the user

20   input into a formal command includes creating a subset of formal commands to narrow a

search space for determining the formal command corresponding to the user input.

23.   A system for context-based dynamic assignment of weights for formal commands

in a natural language understanding system, the system comprising:

25   user interface for generating a user input;

            a natural language understanding system, wherein the user input is translated into

a formal command;

a command booster for calculating a weight value for a next set of formal commands based on the formal command and dynamically boosting the command weights for the next set of formal commands;

a command executor for executing the formal command.

5

24.   A computer program product in a computer readable medium for context-based dynamic assignment of weights for formal commands in a natural language understanding system, comprising:

instructions for receiving a user input;

10   instructions for translating the user input into a formal command;

instructions for determining a weight value for a next set of formal commands based on the formal command;

instructions for dynamically boosting the command weights for the next set of formal commands; and

15   instructions for executing the formal command.

25.   The computer program product of claim 24, further comprising:

instructions for receiving a second user input; and

instructions for translating the second user input into a formal command based on

20   the weight value.

26.   The computer program product of claim 24, wherein the instructions for calculating a weight value for the next set of formal commands includes one of a given command history, access method information, and application context.

25

27.   The computer program product of claim 24, wherein the instructions for dynamically boosting the command weights for the set of formal commands includes ranking the formal commands based on their corresponding conditional probability.

5   28.   The computer program product of claim 24, wherein the instructions for translating the user input into a formal command includes converting the user input into text and converting the text into a formal command.

29.   The computer program product of claim 24, further comprising:

10   instructions for resetting the boosted command weights to a default value.

30.   The computer program product of claim 29, wherein the instructions for resetting the boosted command weights includes automatically resetting the command weights to the default value after the next set of formal commands are executed.

15

31.   The computer program product of claim 29, wherein the instructions for resetting the boosted command weights includes issuing a reset command by the dialog manager.

32.   The computer program product of claim 29, wherein the instructions for resetting

20   the boosted command weights includes allowing the boosted command weights to decay over time.

33.   The computer program product of claim 32, wherein allowing the boosted command weights to decay over time includes resetting the boosted command weights

25   when the command weights reach a minimum value.

34.   The computer program product of claim 24, wherein the instructions for
translating the user input into a formal command includes creating a subset of formal
commands to narrow a search space for determining the formal command corresponding
to the user input.

5